REGRESSION ANALYSIS (PYQS)

By Dr. Farah

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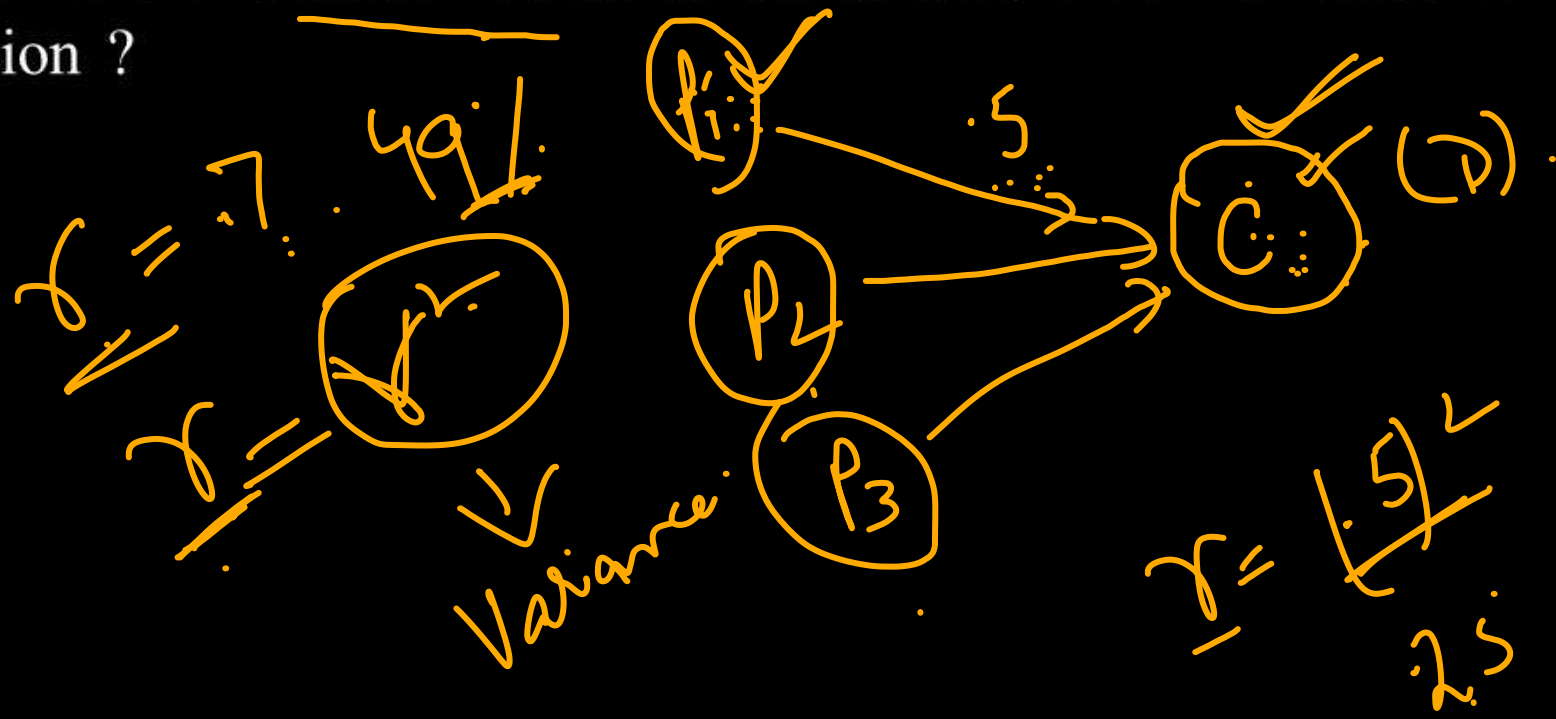
1. In a multiple regression analysis, the three predictors explained 49 percent variance in the criterion variable. What would be the value of multiple correlation ?

A..39

B..49

C..51

D..70



2.(A) : In simple regression analysis if the value of one regression coefficient (bxy) is less than 1- 00. the value of second regression coefficient (byx) has to be less than 1 -00

Reason (R): The correlation between two variables x and y is equal to the geometric mean between the two regression coefficients (bxy and byx)

- **Codes**

1). Both (A) and (R) are true and(R) is the correct explanation of (A)

2). Both (A) and (R) are true but (R) is not the correct explanation of (A)

3). (A)is true but (R) Is false

4). (A) is false but (R) is true

3. Assertion (A) : In multiple regression, the b or β coefficient associated with a given predictor is sometimes statistically non-significant, although the correlation between the criterion and the given predictor is significant.

Reason (R) : In multiple regression, the b or β coefficients are partial regression coefficient.

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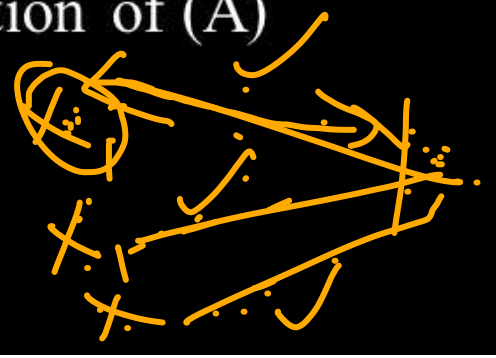

4. (A) If all the assumptions are fulfilled, addition of any predictor in the Multiple Regression will increase the value of coefficient of determination

(R) Correlation of criterion variables with the predictor variables can be positive or negative

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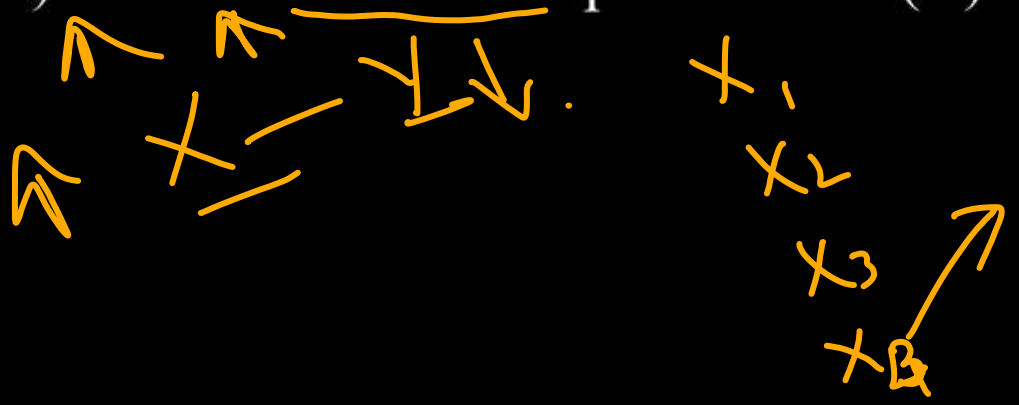


5. The b coefficient obtained in multiple regression is

1). Partial corrélation coefficient

2). Correlation coefficient

3). Regression coefficient

4). Partial régression coefficient

6. Which of the following statements are true about simple bivariate linear regression?

a). The b coefficient is a slope of the regression line.

b). The b coefficient denotes change in Y, when X changes by 1 unit.

c). The errors of prediction have a mean and variance of zero.

d). If the b coefficient is significant, the product moment correlation between X and Y is also significant.

Codes:

1). (a) and (b)

2). (c) and (d)

3). (a), (b) and (c)

4). (a), (b) and (d)

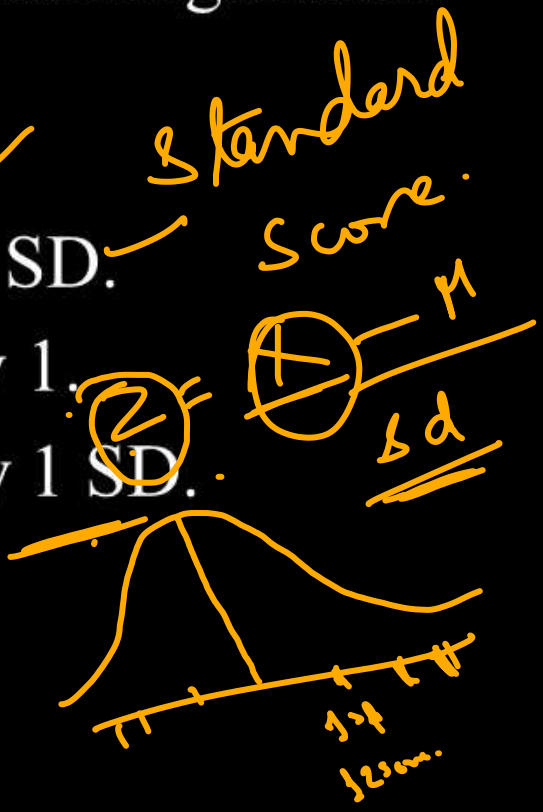
7. The standardized regression coefficient (β) in bivariate regression indicates

a). Change in Y scores when X scores change by 1.

b). Change in Y scores when X scores change by one SD.

c). Change in Z-scores of Y when X scores change by 1.

d). Change in Z-scores of Y when X scores change by 1 SD.



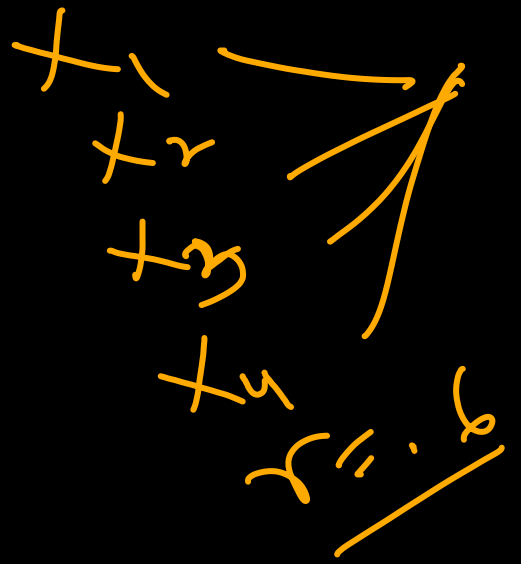
8. While evaluating the personnel selection programme, job performance was found to have a multiple correlation of 0.6 with the four predictors in the selection test battery. This means that the four predictors explain

a). 36% variance in job performance

b). 40% variance in job performance

c). 60% variance in job performance

d). 64% variance in job performance



9. The multiple correlation of academic achievement with Numerical ability, Abstract reasoning, and Verbal ability was found to be 0.6. Which of the following statement/s would be true in this context?

a). None of the three predictors would correlate more than 0.6 with academic achievement.

b). The three predictors together would explain 36 percent variance in academic achievement.

c). At least, one predictor would correlate 0.6 with academic achievement.

d). The three predictors would explain 60 percent of variance in academic achievement.

1). b only

2). a and b only

3). b and d only

4). c and d only

10. The multiple correlation ranges between :

1). −0.50 to +0.50

2). −1.00 to +1.00

3). Zero to 1.00

4). There is a fixed range for bivariate correlation, but not for multiple correlation

Thank You ☺